We claim:

1. A system, comprising:

a clock generator to generate a number of clock signals having equally spaced phases determined by a predetermined fraction of a data rate frequency of a data stream; and

a sampling unit to sample the data stream based on the clock signals.

2. The system of claim 1, wherein each of the clock signals has a frequency determined by the predetermined fraction of the data rate frequency of the data stream.

3. The system of claim 2, wherein the predetermined fraction is N, the equal phase spacing of the clock signals is 360°/N, and the frequency of each clock signal is equal to 1/N of the data rate frequency of the data stream.

4. The system of claim 1, wherein the sampling unit includes a number of samplers which sample the data stream based on different combinations of the clock signals.

5. The system of claim 4, wherein each sampler samples the data stream based on a different pair of the clock signals.

6. The system of claim 4, wherein the number of samplers equals to the number of clock signal phases generated by the clock generator.

7. The system of claim 4, wherein the number of samplers and the number of clock signal phases generated by the clock generator are different.

8. The system of claim 4, wherein each of the samplers sample the data stream based on a different pair of clock signals having consecutive phases.

9. The system of claim 1, where the equal spacing of the clock signal phases corresponds to a symbol duration of the data stream.

10. The system of claim 1, further comprising:

a converter to convert an optical data stream into an electrical data stream,

wherein the sampling unit samples the electrical data stream based on the clock signals.

11. The system of claim 10, wherein the data rate frequency is a data rate frequency of the optical data stream sampled by the sampling unit.

12. A data sampling method, comprising:

generating a number of clock signals having equally spaced phases, each of said phases determined by a predetermined fraction of a data rate frequency of a data stream; and

sampling the data stream based on the clock signals.

13. The method of claim 12, wherein each of the clock signals has a frequency determined by the predetermined fraction of the data rate frequency of the data stream.

14. The method of claim 13, wherein the predetermined fraction is N, the equal phase spacing of the clock signals is 360°/N, and the frequency of each clock signal is equal to 1/N of the data rate frequency of the data stream.

15. The method of claim 12, wherein sampling the data stream includes:

sampling the data stream based on different combinations of the clock signals.

16. The method of claim 12, wherein sampling the data stream includes:

sampling the data stream based on a different pair of the clock signals.

17. The method of claim 16, wherein the different pair includes clock signals having consecutive phases.

18. The method of claim 12, wherein sampling the data stream includes:

sampling the data stream using a number of samplers equal to the number of generated clock signal phases.

19. The method of claim 12, wherein sampling the data stream includes:

sampling the data stream using a number of samplers different from the number of generated clock signal phases.

20. The method of claim 12, where the equal spacing of the clock signal phases corresponds to a symbol duration of the data stream.

21. The method of claim 12, further comprising:

converting an optical data stream into an electrical data stream, wherein sampling the data stream includes sampling the electrical data stream based on the clock signals.

22. The method of claim 21, wherein the data rate frequency is a data rate frequency of the optical data stream.

23. A data sampler, comprising:

a sampling stage to sample data based on clock signals having different phases; and

a buffer to stored the sampled data.

24. The data sampler of claim 23, wherein the difference between the phases of the clock signals at least substantially equals a symbol duration of the data.

25. The data sampler of claim 23, wherein the buffer includes a static latch.

26. A method, comprising:

sampling a data stream based on clock signals having different phases; and

storing the sampled data in a storage circuit.

27. The method of claim 26, wherein the difference between the phases of the clock signals at least substantially equals a symbol duration of the data.

28. The method of claim 26, wherein the storage circuit includes a static latch.

29. A system, comprising:

a processor; and

a sampling unit including:

(a) a clock generator to generate a number of clock signals having equally spaced phases determined by a predetermined fraction of a data rate frequency of a data stream; and

(b) a sampling unit to sample the data stream based on the clock signals.

30. The system of claim 29, where the equal spacing of the clock signal phases corresponds to a symbol duration of the data stream.